

Serial No.: 10/516,859
Art Unit: 2618
Attorney Docket: PU020269

Remarks/Arguments

The Office Action mailed November 16, 2007 has been reviewed and carefully considered. Claims 1-17 are currently pending in this application. Reconsideration of the above-identified application in view of the following remarks is respectfully requested.

Claim rejections:

Claims 1-2 and 4-6 currently stand rejected under 35 U.S.C. §103(a) in view of United States Patent No. 6,389,548 to Bowles (hereinafter 'Bowles') and United States Patent Application Publication No. 2001/0,033,531 to Ozawa, et al., (hereinafter 'Ozawa').

Claim 1 recites:

Apparatus comprising:
a receiver for receiving an audio file signal;
a decoder for demodulating said audio file signal; and
a processor for polling said decoder for a loss of a phase lock in said demodulating of said audio file signal.

In support of the rejection of claim 1, the Examiner has asserted that Bowles discloses the feature of polling a decoder for a loss of a phase lock in demodulating a signal (see Office Action of November 16, 2007, p. 2-3). Specifically, the Examiner construes a "phase error," as described in Bowles, to represent an "unlocked" condition of a phase locked loop (Office Action of November 16, 2007, p. 2). In addition, the Examiner further maintains that because the Slicer 37 of Bowles monitors the phase error, the Slicer polls for a loss of a phase lock in demodulating an input signal (see Office Action of November 16, 2007, p. 2-3). However, as discussed herein below, the Examiner has misinterpreted both the meaning of "phase error" and the function of the Slicer described in Bowles.

Bowles discloses a method for decoding data from a high frequency (HF) signal. In the decoding scheme described in Bowles, data may be extracted by determining the time, or "run length," between transitions within the HF signal. With reference to FIG. 2 of Bowles, a transition occurs when the high frequency signal intersects a slicing threshold 12 that is superimposed on the waveform of the HF signal by a decoding

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system. For example, referring to the top of FIG. 2, points 13 and 14 represent transitions. To determine the run length between transitions, the Bowles system compares the HF signal to a bit clock waveform, an example of which is provided in the bottom portion of FIG. 2. Upon detecting a transition, the Bowles systems adjusts the bit clock waveform in such a way that a transition point lies within a phase range of 0 and 2π , e.g. waveform 21, where the transition point in the adjusted bit clock is at 13'. The run length is simply the phase difference between transition points, which in FIG. 2, is 8π , the phase difference between 13' and 14.

A "phase error," as described by Bowles, is simply the phase at which a transition point 13' lies on an adjusted bit clock waveform (see, e.g., Bowles, column 6, lines 49; column 9, lines 13-18). The Slicer monitors the phase errors of transition points and adjusts the slicing threshold 12 to minimize the difference between consecutive phase errors (see, Bowles, column 8, lines 6-11). Minimization of the difference between phase errors tends to negate the effect of asymmetry of a CD from which the HF signal was extracted and also causes the measured run lengths to tend toward integral numbers (see Bowles, column 8, lines 15-23).

Additionally, in accordance with Bowles, a "[p]hase lock is deemed to have occurred when the phase error remains below a user-specified threshold for a user-specified number of consecutive run lengths" (Bowles, column 7, lines 16-18). Thus, although the phase error may indicate an unlocked condition if it is outside a certain threshold, the mere presence of a phase error cannot be interpreted as an unlocked condition.

Moreover, while the Slicer monitors the phase errors of transitions, the Slicer does not poll the decoder for a loss of a phase lock. Nowhere does Bowles disclose or suggest that the Slicer compares phase errors to a user-specified threshold to determine whether a phase lock was lost. As discussed above, the Slicer determines the difference between two phase errors corresponding to two transitions. The difference between two phase errors in and of itself may not indicate whether a loss of a phase lock has occurred. Thus, despite the Examiner's assertions otherwise, the Slicer of Bowles does not poll a decoder for the loss of a phase lock in demodulating a signal, as recited in claim 1.

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Furthermore, Ozawa does not disclose the feature of polling a decoder for a loss of a phase lock. Ozawa is directed to a dubbing apparatus and a dubbing method (see, Ozawa, Abstract). Although the system of Ozawa employs phase lock loops in dubbing operations, Ozawa does not disclose or render obvious polling a decoder for a loss of a phase lock (see, e.g. Ozawa, paragraph 96).

Accordingly, claim 1 is believed to be patentable over Bowles and Ozawa, taken singly or in combination, for at least the reasons stated above. In addition, claims 2 and 4-6 are patentable over Bowles and Ozawa due at least to their dependencies from claim 1.

Claim 3 stands rejected as being unpatentable over Bowles as modified by Ozawa in view of United States Patent No. 6,389,548, to Zuqert et al. (hereinafter Zuqert).

Because claim 3 is dependent on claim 1, claim 3 includes the feature of polling a decoder for a loss of a phase lock. For the reasons discussed above, claim 1, and thus, claim 3, is believed to be patentable over Bowles and Ozawa. Moreover, combination of Bowles and/or Ozawa with Zuqert does not render claim 3 obvious, as Zuqert fails to disclose or suggest the feature of polling a decoder for a loss of a phase lock.

Zuqert is directed to a wireless transmission system that employs at least two copies of data packets in an attempt to improve the quality level of received packets (see Zuqert, Abstract). While the Zuqert system employs a phase lock loop to lock on to transmission frequencies (see Zuqert, column 18, lines 12-25), Zuqert does not disclose or render obvious the feature of polling a decoder for a loss of a phase lock, as included in claim 3. Accordingly, claim 3 is believed to be patentable over Bowles, Ozawa and Zuqert, taken singly or in any combination.

Claims 7-17 stand rejected as being unpatentable over Zuqert in view of Bowles.

Claim 7 includes, inter alia, the feature of "polling said demodulating for a loss in a phase lock in said demodulating." Similarly, claim 12 includes, inter alia: "polling said decoding for a loss of a phase lock in said decoding of said audio file signal." Thus, for at least the reasons discussed above, claims 7 and 12 are believed to be patentable over

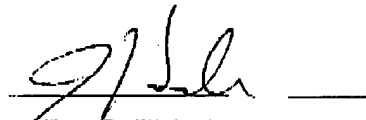
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Zugert and Bowles, taken singly or in combination. Furthermore, claims 8-11 and 13-17 are believed to be patentable over Zugert and Bowles due at least to their dependencies from claims 7 and 12, respectively.

In view of the foregoing, the Applicant respectfully requests that the rejections of the claims set forth in the Office Action of November 17, 2007 be withdrawn, that pending claims 1-17 be allowed, and that the case proceed to early issuance of Letters Patent in due course.

It is believed that no additional fees or charges are currently due. However, in the event that any additional fees or charges are required at this time in connection with the application, they may be charged to the Applicant's representatives Deposit Account No. 07-0832.

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